



Emerson®

1.0 CUBIC FOOT MICROWAVE OVEN

AFTER READING THIS OWNER'S MANUAL,
IF YOU ARE IN NEED OF ADDITIONAL
SET-UP OR OPERATING ASSISTANCE,
PLEASE CALL TOLL FREE
1 - 800 - 388 - 8333

OWNER'S MANUAL AND COOKING GUIDE

MT3100

PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- (a) Do not attempt to operate this oven with the door open since open-door operation can result in harmful exposure to microwave energy.
It is important not to defeat or tamper with the safety interlocks.
- (b) Do not place any object between the oven front face and the door or allow soil or cleaner residue to accumulate on sealing surfaces.
- (c) Do not operate the oven if it is damaged.
It is particularly important that the oven door closes properly and that there is no damage to the: (1) door (bent), (2) hinges and latches (broken or loosened) (3) door seals and sealing surfaces.
- (d) The oven should not be adjusted or repaired by anyone except properly qualified service personnel.

CONTENTS

Precautions to Avoid Possible Exposure to Excessive Microwave Energy	1	To Stop the Oven While it is Operating	21
Important Safety Instructions	2	Cooking Guide	22
Safety Precautions	3	The Principles of Microwave Cooking	22
Grounding Instructions	4	Food Characteristics	22
Installation	4	Microwave Techniques	23
Care of Your Microwave Oven	5	Auto Weight Defrosting	24
How to Use Your Microwave		Popping Popcorn	25
Oven Safety	5	Reheating	26
Feature Locations	6	Coffee Reheating	26
Operation Procedure	7	Hold Warm	27
Controls	8	Hot Snacks and Appetizers	27
Setting the Clock	8	Meats	27
Auto Defrosting	9	Poultry	28
Cooking in One Stage	9	Seafood	29
Cooking in Two Stages	10	Eggs & Cheese	30
Auto Defrosting and Cooking in Two Stages	12	Vegetables	30
Memory	14	Soups	31
To Recall Memory Data	15	Sauces	32
Auto Start	15	Casseroles	32
To Check Auto Start Time	16	Sandwiches, Including Hamburgers and Hot Dogs	33
Auto Weight Defrost	16	Pastas & Grains	33
Popcorn	17	Convenience Foods	34
Coffee	18	Beverages	34
Reheat	19	Desserts	35
Hold Warm	19	Weight and Measure Conversion Chart	35
Timer	20	Specifications	36

IMPORTANT SAFETY INSTRUCTIONS

When using electrical appliances, basic safety precautions should be followed, including the following:

WARNING—To reduce the risk of burns, electric shock, fire, injury to persons or exposure to excessive microwave energy:

- 1 Read all instructions before using this appliance.
- 2 Read and follow the specific **"PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY"** found on page 1.
- 3 This appliance must be grounded. Connect only to properly grounded outlet. See **"GROUNDING INSTRUCTIONS"** found on page 4.
- 4 Install or locate this appliance only in accordance with the provided installation instructions.
- 5 Some products such as whole eggs and sealed containers—for example, closed glass jars—may explode and should not be heated in this oven.
- 6 Use this appliance only for its intended use as described in this manual.
- 7 As with any appliance, close supervision is necessary when used by children.
- 8 Do not operate this appliance if it has a damaged cord or plug, if it is not working properly, or if it has been damaged or dropped.
- 9 This appliance should be serviced only by qualified service personnel. Contact the nearest authorized service facility for examination, repair or adjustment.
- 10 Do not cover or block any openings on this appliance.
- 11 Do not use outdoors.
- 12 Do not immerse cord or plug in water.
- 13 Keep cord away from heated surfaces.
- 14 Do not let cord hang over edge of table or counter.
- 15 When cleaning surfaces of door and oven that come together when closing the door, use only mild, non-abrasive soaps or detergents applied with a sponge or soft cloth.
- 16 To reduce the risk of fire in the oven cavity:
 - (a) Do not overcook food. Carefully attend appliance if paper, plastic, or other combustible materials are placed inside the oven to facilitate cooking.
 - (b) Remove wire twist-ties from paper or plastic bags before placing bag in oven.
 - (c) If materials inside the oven should ignite, keep oven door closed, turn oven off, and disconnect the power cord, or shut off power at the fuse or circuit breaker panel.
- 17 Do not use this microwave oven to heat corrosive chemicals (for example, sulfides and chlorides). Vapors from such corrosive chemicals may interact with the contact and springs of the safety interlock switches thereby rendering them inoperable.

SAVE THESE INSTRUCTIONS

SAFETY PRECAUTIONS

General Use

- 1 Do not attempt to tamper with or make any adjustments or repairs to door, control panel or any other part of the oven. Do NOT remove outer panel from oven. Repairs should only be done by qualified service personnel.
- 2 Do NOT operate the oven empty. The microwave energy will reflect continuously throughout the oven if no food or water is present to absorb energy.
- 3 If a fire occurs in the oven, touch the STOP/CLEAR pad and LEAVE THE DOOR CLOSED. Disconnect the power cord, or shut off power at the fuse or circuit breaker panel.
- 4 Do NOT attempt to dry clothes, newspapers or other materials in oven. They may catch on fire.
- 5 Do NOT use recycled paper products, as they may contain impurities which may cause sparks and/or fires when used.
- 6 Do NOT hit or strike control panel. Damage to controls may occur.
- 7 Avoid inserting nails, wire, etc. through any holes in the unit during operation. Never insert a wire, nail or any other metal objects through the holes on the cavity or any other holes or gaps, because such objects may cause electric shock and microwave leakage.

Utensils

- 1 METAL CONTAINERS or dishes with metallic rims should not be used. Arcing may occur.
- 2 METAL TWIST-TIES may not be used in the microwave oven.
- 3 Do NOT use SEALED JARS or NARROW NECK bottles for cooking or reheating. They may shatter.
- 4 Do NOT use CONVENTIONAL THERMOMETERS in the microwave oven. They may cause arcing.
- 5 Remove PLASTIC STORE WRAPS, before cooking or defrosting in the oven.
- 6 For FURTHER INFORMATION on proper cooking utensils, refer to the microwave cooking guide.

Food

- 1 Never use your microwave oven for HOME CANNING. The oven is not designed to permit proper canning. Improperly canned food may spoil and be dangerous to consume.
- 2 COOKING TIMES given in the cooking guide are approximate. Factors that may affect cooking are starting temperature, altitude, volume, size and shape of food and utensils used. As you become familiar with the oven, you will be able to adjust for these factors.
- 3 It is better to UNDERCOOK RATHER THAN OVERCOOK foods. If food is undercooked, it can always be returned to the oven for further cooking. If food is overcooked, nothing can be done. Always start with minimum cooking times.
- 4 SMALL QUANTITIES of food or foods with LOW MOISTURE content can burn, dry out or catch on fire if cooked too long.
- 5 Do NOT boil eggs in their shell. Pressure may build up and the eggs will explode.
- 6 Potatoes, apples, egg yolks, whole acorn squash and sausage are examples of food with NON-POROUS SKINS. These must be pierced before cooking to prevent bursting.
- 7 POPCORN must be popped in a microwave corn popper. Microwave popped corn produces a lower yield than conventional popping. Do not use oven for popcorn unless popped in a microwave approved popcorn utensil or unless it's commercially packaged and recommended especially for microwave ovens. Do not use oil unless specified by the manufacturer.
- 8 Do NOT attempt to deep fat fry in your oven.
- 9 HEATED LIQUIDS can ERUPT if not mixed with air. Do not heat liquids in your microwave oven without first stirring.

GROUNDING INSTRUCTIONS

This appliance must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This appliance is equipped with a cord having a grounding wire with a grounding plug. The plug must be inserted into an outlet that is properly installed and grounded.

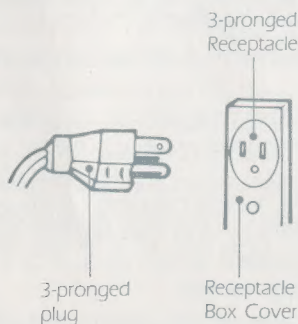
WARNING: Improper use of the grounding plug can result in a risk of electric shock. Consult a qualified electrician or service person if the grounding instructions are not completely understood, or if doubt exists as to whether the appliance is properly grounded.

If it is necessary to use an extension cord, use only a three wire extension cord that has a three blade grounding plug, and a three slot receptacle that will accept the plug on the appliance. The marked rating of the extension cord should be equal to or greater than the electrical rating of the appliance.

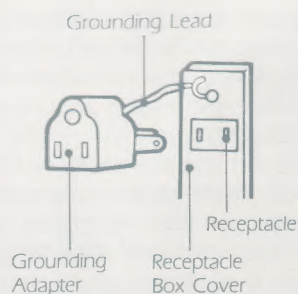
INSTALLATION

- 1. Steady, flat location:** When positioning the microwave oven, it should be set on a flat, steady surface.
- 2. Ventilation:** Do not block air vents. If they are blocked during operation, the oven may overheat and eventually cause oven failure. For proper ventilation, keep 3 inches of space between the oven's top, sides, rear and the area where the unit is to be installed.
- 3. Radio and TV reception:** Poor television reception and radio interference may result if the oven is located close to a TV, radio, antenna, or antenna wire. Position the oven as far from them as possible.
- 4. Temperature and moisture:** Keep the oven away from hot air, steam or splashing liquids when choosing a place to locate it, otherwise, the unit's operation may be adversely affected, causing it to break down.
- 5. Power supply:**
 - Check your local power source. This microwave oven requires a 120V, 60Hz power supply.
 - Use a receptacle that will accept the ground prong.
 - Power supply cord is 1.4 meters (4.5 feet) long.
 1. A short power-supply cord is provided to reduce the risks resulting from becoming entangled in or tripping over a longer cord.
 2. Longer cord sets or extension cords are available and may be used if care is exercised in their use.
 3. If a long cord or extension cord is used, (1) the marked electrical rating of the cord set or extension cord should be at least as great as the electrical rating of the appliance, (2) the extension cord must be a grounding-type 3-wire cord, and (3) the longer cord should be arranged so that it will not drape over the counter top or tabletop where it can be pulled on by children or tripped over accidentally.
- 6. Examine the oven for any damage such as:** Dents, a misaligned door, broken door, a dent in the cavity. If any of the above are visible, DO NOT INSTALL THE UNIT. Notify the dealer immediately.

When using a 3-pronged plug

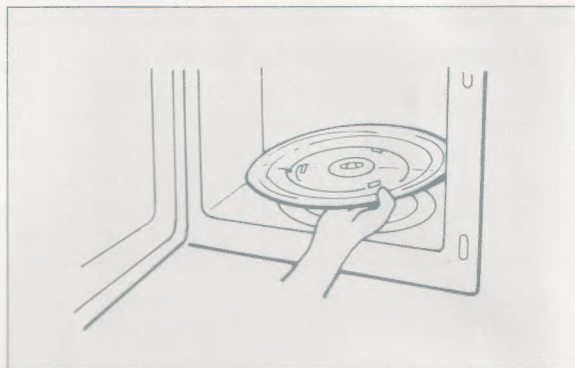


When using a grounding adapter, make sure the receptacle box is fully grounded



CARE OF YOUR MICROWAVE OVEN

- 1 Disconnect the AC plug from the outlet before cleaning.
- 2 Keep the inside of the Oven clean. When food spatters or spilled liquids adhere to oven walls, wipe with a damp cloth. Mild detergent may be used if the oven gets very dirty. The use of harsh detergent or abrasives is not recommended.
- 3 The outside oven surface should be cleaned with soap and water, rinsed and dried with a soft cloth. To prevent damage to the operating parts inside the oven, water should not be allowed to seep into the ventilation slots.
- 4 If the Control Panel becomes wet, clean with a soft, dry cloth. Do not use harsh detergents or abrasives on Control Panel.
- 5 If steam accumulates on both sides of the oven door, wipe with a soft cloth. This may occur when the microwave oven is operated under high humidity conditions and this is not an indication of a malfunction in the unit.
- 6 It is occasionally necessary to remove the glass tray for cleaning. Wash the tray in warm sudsy water or in a dishwasher.



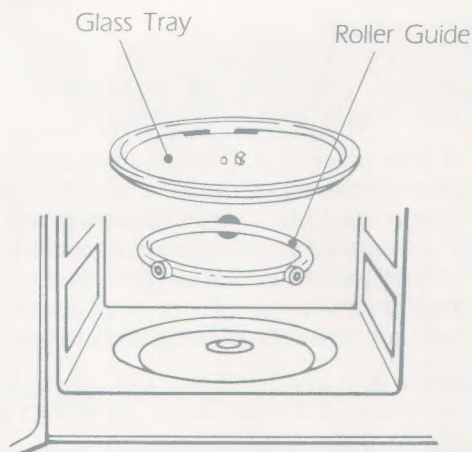
- 7 The roller guide and oven cavity floor should be cleaned regularly to avoid excessive noise. Simply wipe the bottom surface of the oven with mild detergent water or window cleaner and dry. The roller guide may be washed in mild sudsy water or dishwasher.

Roller Guide

- 1 The ROLLER GUIDE and oven floor should be cleaned frequently to prevent excessive noise.
- 2 The ROLLER GUIDE MUST ALWAYS be used for cooking together with the Glass Tray.

Glass Tray

- 1 Do NOT operate the oven without the Glass Tray in place.
- 2 Do NOT use any other Glass Tray with this oven.
- 3 If the Glass Tray is hot, ALLOW IT TO COOL before cleaning or placing it in water.
- 4 Do NOT cook directly on the Glass Tray.

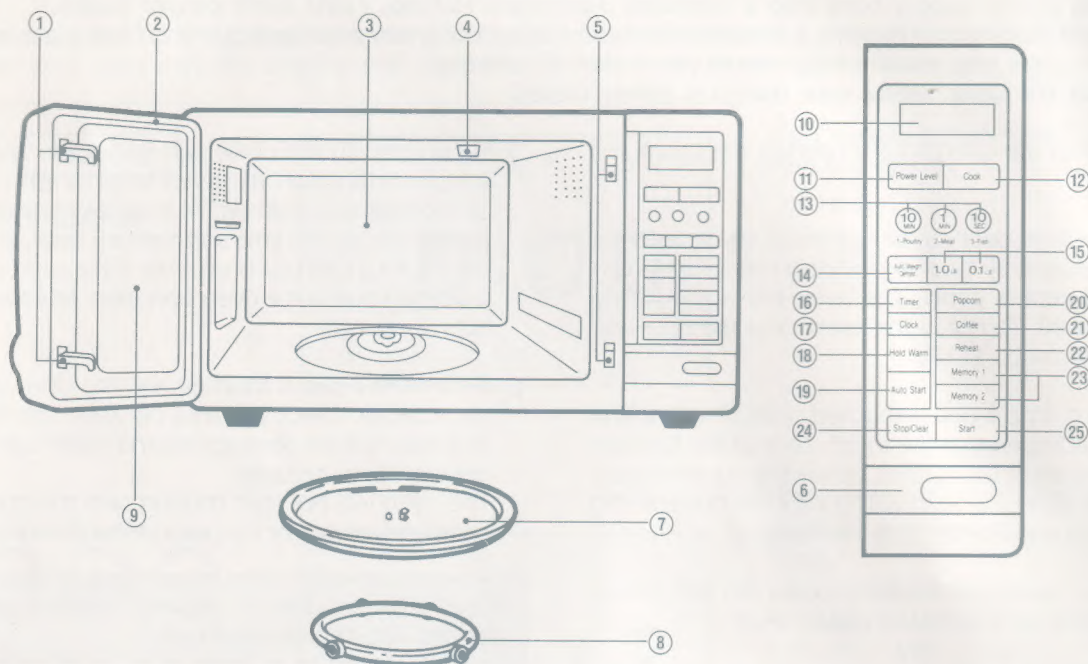


HOW TO USE YOUR MICROWAVE OVEN SAFELY

Although your oven is provided with safety features, it is important to observe the following:

- a) It is important not to defeat or tamper with safety interlocks.
- b) Do not place any object between the oven face and the door or allow residue to accumulate on sealing surfaces. Wipe the sealing area frequently with a mild detergent, rinse and wipe dry. Never use abrasive powders or pads.
- c) When opened, the door must not be subjected to strain, for example, a child hanging on an opened door or any load which could cause the oven to fall forward and cause injury and damage the door. Do not operate the oven if it is damaged, until it has been repaired by a qualified service person. It is particularly important that the oven close properly and that there is not damage to the:
 - i) Door (bent), ii) Hinges and Latches (broken or loosened), iii) Door seals and sealing surfaces.
- d) The oven should not be adjusted or repaired by anyone except properly qualified service personnel.

FEATURE DIAGRAM



- ① **Door hook**—When the door is closed, it will automatically shut. If the door is opened while the oven is operating, the magnetron will immediately stop operating.
- ② **Door seal**—The door seal maintains the microwaves within the oven cavity and prevents microwave leakage.
- ③ **Oven cavity**.
- ④ **Spatter shield**—Protects the microwave outlet from splashes of cooking foods.
- ⑤ **Safety interlock system**—Prevents the oven from operating while the door is opened.
- ⑥ **Door release button**—Pushing this button stops oven operation and opens the door.
- ⑦ **Glass cooking tray**—Made of special heat resistant glass. For microwave cooking, set containers of food on it.
- ⑧ **Roller guide**—Supports the glass cooking tray.
- ⑨ **Door screen**—Allows viewing of food. The screen is designed so that light can pass through, but not microwaves.
- ⑩ **V.F. display**—Selected cooking time, power level and time of day clock are displayed.
- ⑪ **Power level pad**—Used to set the desired power level.
- ⑫ **Cook pad**—Touch to set any desired cook setting.
- ⑬ **Time set pads**—Used to set the cooking time and the present time.
- ⑭ **Auto weight defrost pad**—Used to set the desired defrosting weight from 0.5 lb. to 6 lbs.
- ⑮ **Weight set pads**—Used to set the defrosting weight.
- ⑯ **Timer pad**—Touch to set the timer.
- ⑰ **Clock pad**—Touch to set the present time.
- ⑱ **Hold warm pad**—Used to keep the food warm after the cooking is completed.
- ⑲ **Auto start pad**—Touch this pad to auto start the oven.
- ⑳ **Popcorn pad**—Touch to set the oven to automatically cook popcorn.
- ㉑ **Coffee pad**—Used to reheat coffee.
- ㉒ **Reheat pad**—Touch to set any desired reheat setting.
- ㉓ **Memory pad**—Touch to program or recall any desired memory setting.
- ㉔ **Stop/Clear pad**—Used to stop the oven operation or to delete the cooking data.
- ㉕ **Start pad**—Used to start a selected operation.

OPERATION PROCEDURE

This Section Includes Useful Information About Oven Operation

1. Plug power supply cord into a standard 3-pronged 15Amp, 120V 60Hz power outlet.
2. After placing the food in a suitable container, open the oven door and put it on the glass tray. The glass tray must always be in place during cooking.
3. Shut the door. Make sure that it is firmly closed.

1 When the oven door is opened, the light turns off.

2 The oven door can be opened at any time during operation by touching the door release button on the control panel. The oven will automatically shut off. To restart the oven, close the door and then touch START.

3 Each time a pad is touched, a BEEP will sound to acknowledge the touch. One of the function pads must be touched before the numeral pads. Therefore, no beep will sound if the numeral Pad is touched before the function pad.

4 The oven automatically cooks on full power unless set to a lower power level.

5 The display will show "0:00" when the oven is plugged in.

6 Time clock returns to the present time when the oven turns off.

7 When the STOP/CLEAR pad is touched during the oven operation, the oven stops cooking and all information is retained. To erase all information (except the present time and memory data), touch the STOP/CLEAR pad once more. If the oven door is opened during the oven operation, all information is retained.

8 If the START pad is touched and the oven does not operate, check the area between the door and door seal for obstructions and make sure the door is closed securely. The oven will not start cooking until the door is completely closed or the program has been reset.

Make sure the oven is properly installed and plugged into the electrical outlet.

PROGRAMMING TONE

- Whenever you touch a command pad, you will hear a beep.
- If you do not hear a beep, it means that the procedure was not done correctly.

Wattage Output Chart

* The power-level is set by pressing the power level pad. The chart shows the display, the power level and the wattage for each number of presses of the power level pad.

Touch No.	Power level	Display	Wattage
none	HIGH	PL-5	850 W
once	MED-H	PL-4	671 W
twice	MED	PL-3	501 W
3 times	DEFROST	DEF	VARIABLE
4 times	LOW	PL-1	144 W
5 times	HIGH	PL-5	850 W

ADDITIONAL INFORMATION

1. You can't program more than 99 minutes and 00 seconds in each stage.
2. You can't program more than 6 Lbs in the WEIGHT DEFROST stage.
3. If you open the oven door during cooking, be sure to touch the START pad to resume cooking after the door has been closed again.
4. The oven door can be opened at any time while the oven is operating.
- 7 • If the oven door is opened, the oven turns off and the DISPLAY stops counting down the cooking time.

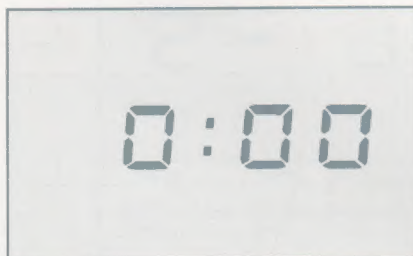
CONTROLS

SETTING THE CLOCK

When the oven is first plugged in, the Display will flash "0:00" and a tone will sound. If the AC power ever goes off, the Display will flash "0:00" when the power comes back on.

CLOCK

1. Touch **CLOCK**.

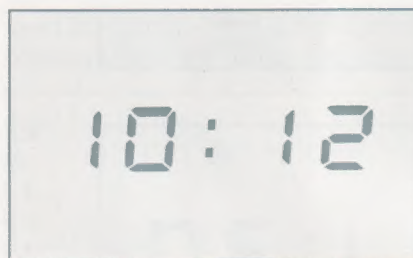


The Display will flash "0:00" and a tone will sound.

HOUR 10 MIN 1 MIN



2. Touch the TIME SET pads to set the correct present time.



EXAMPLE: To set the time to "10:12".

- Touch HOUR 10 times.
- Touch 10 MIN 1 time.
- Touch 1 MIN 2 times.

The Display will show the numbers pressed in the order you pressed them.

CLOCK

3. Touch **CLOCK**.

The Display will show the present time. If you've programmed in an incorrect time such as "0:24", the time will not be set and the clock will not work. If this occurs, reset the clock. This 12 hour digital clock allows you to set it from "1:00" to "12:59".

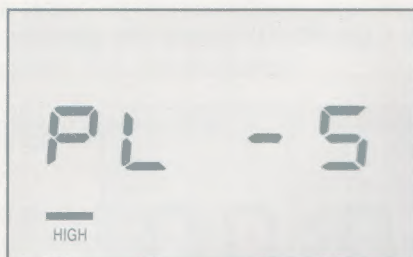
NOTE: If the oven is used before the present time is set, the Display will flash "0" after the cooking is completed.

AUTO DEFROSTING

When **AUTO DEFROST** is selected, the automatic cycle divides the defrosting time into periods of alternating defrost and stand times by cycling on and off. This provides more even defrosting.

COOK

1. Touch **COOK**.



The **HIGH** indicator lights and "PL-5" is displayed.

**POWER
LEVEL**

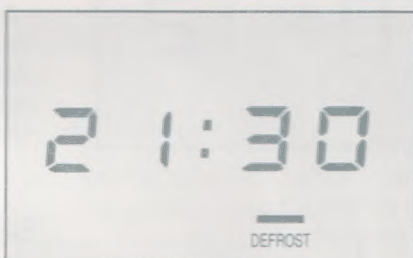
2. Touch **POWER LEVEL** three times.



The **DEFROST** indicator lights and "dEF" is displayed.



3. Touch the **TIME SET** pads for the defrosting time you want.



EXAMPLE: To set the defrosting time to "21:30".

- Touch **10 MIN** 2 times.
- Touch **1 MIN** 1 time.
- Touch **10 SEC** 3 times.

The Display will show the numbers pressed in the order you pressed them.

START

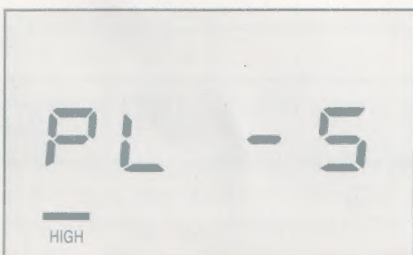
4. Touch **START**.

When you touch **START**, the **DEFROST** indicator starts blinking to show the oven is in the Auto Defrost mode. The Display counts down the time to show you how much defrosting time is left in the Auto Defrost mode. When the defrosting time ends, you will hear 5 beeps.

COOKING IN ONE STAGE

COOK

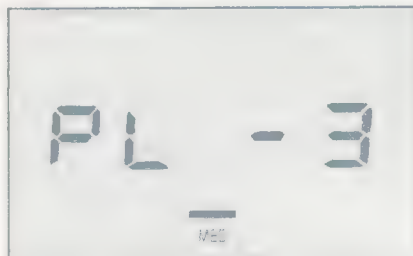
1. Touch **COOK**.



The **HIGH** indicator lights and "PL-5" is displayed.

POWER
LEVEL

2. Touch **POWER LEVEL** repeatedly until the desired power level is shown in the Display Window.



EXAMPLE: To select "PL-3".
• Touch POWER LEVEL 2 times
The MED indicator lights and "PL-3" is displayed.

NOTE: If this step is omitted, the oven will cook at full power ("PL-5").



3. Touch the TIME SET pads for the cooking time you want.



EXAMPLE: To set the cooking time to "12:30".

- Touch 10 MIN 1 time.
 - Touch 1 MIN 2 times.
 - Touch 10 SEC 3 times.
- The Display will show the numbers pressed in the order you pressed them.

START

4. Touch **START**.

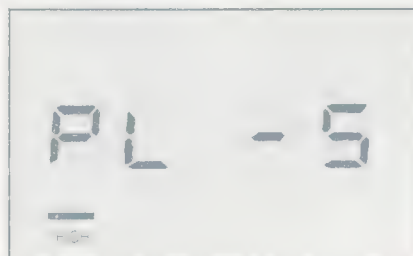
When you touch **START**, the MED indicator lights and the Display counts down the time to show how much cooking time is left. When the cooking time ends, you will hear 5 beeps.

COOKING IN TWO STAGES

For best results, some recipes call for one power level for a certain length of time and another power level for a different length of time. Your microwave oven can be set to change from one to another.

COOK

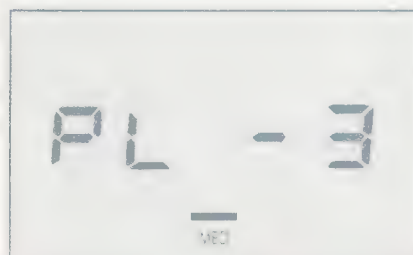
1. Touch **COOK**.



The HIGH indicator lights and "PL-5" is displayed.

POWER
LEVEL

2. Touch **POWER LEVEL** repeatedly until the desired power level for Stage one is shown in the Display Window.

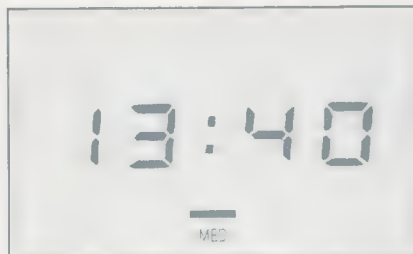


EXAMPLE: To select "PL-3".
• Touch POWER LEVEL 2-times.
The MED indicator lights and "PL-3" is displayed.

NOTE: If this step is omitted, the oven will cook at full power ("PL-5").



3. Touch the **TIME SET** pads for the cooking time you want in Stage one.



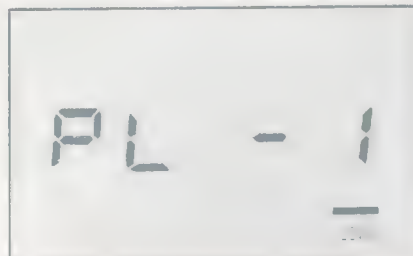
EXAMPLE: To set the cooking time to "13:40".

- Touch 10 MIN 1 time.
- Touch 1 MIN 3 times.
- Touch 10 SEC 4 times.

The Display will show the numbers pressed in the order you pressed them.

**POWER
LEVEL**

4. Touch **POWER LEVEL** repeatedly until the desired power level for Stage two is shown in the Display Window.

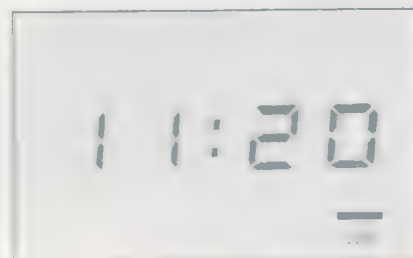


EXAMPLE: To select "PL-1".

- Touch POWER LEVEL repeatedly until the LOW indicator lights and "PL-1" is displayed.



5. Touch the **TIME SET** pads for the cooking time you want in Stage two.



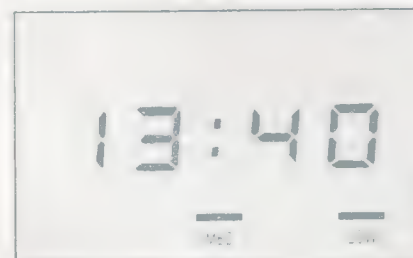
EXAMPLE: To set the cooking time to "11:20".

- Touch 10 MIN 1 time.
- Touch 1 MIN 1 time.
- Touch 10 SEC 2 times.

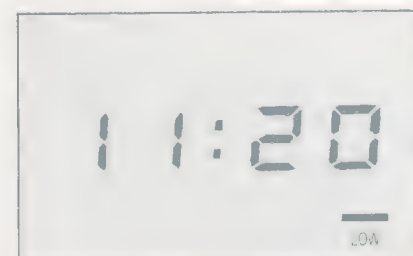
The Display will show the numbers pressed in the order you pressed them.

START

6. Touch **START**.
The oven begins cooking in Stage one, then switches to Stage two.



EXAMPLE: When you touch START, both MED and LOW indicators come on to confirm the power levels selected in steps 2 and 4. The MED indicator starts blinking to show you that the oven is cooking in Stage one. The Display counts down the time remaining in Stage one. At the end of Stage one, the oven will beep and start Stage two.



The MED indicator goes off and the LOW indicator starts blinking. The Display counts down the time remaining in Stage two. When Stage two ends, you will hear 5 beeps.

AUTO DEFROSTING AND COOKING IN TWO STAGES

Some recipes require frozen foods to be thawed before cooking. This oven can be programmed to automatically defrost foods before cooking.

COOK

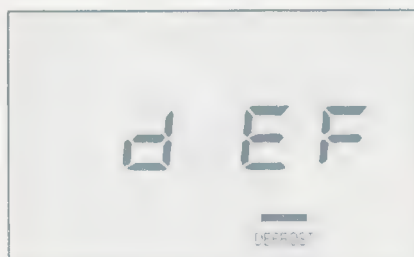
1. Touch **COOK**.



The HIGH indicator lights and "PL-5" is displayed.

**POWER
LEVEL**

2. Touch **POWER LEVEL** three times.



The DEFROST indicator lights and "dEF" is displayed.



3. Touch the TIME SET pads for the defrosting time you want.



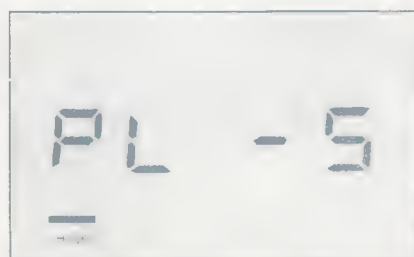
EXAMPLE: To set the defrosting time to "12:30".

- Touch 10 MIN 1 time.
- Touch 1 MIN 2 times.
- Touch 10 SEC 3 times.

The Display will show the numbers pressed in the order you pressed them.

**POWER
LEVEL**

4. Touch **POWER LEVEL** repeatedly until the desired power level for Stage one is shown in the Display Window.

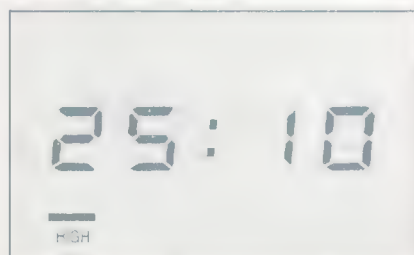


EXAMPLE: To select "PL-5".

- Touch POWER LEVEL repeatedly until the HIGH indicator lights and "PL-5" is displayed.



5. Touch the TIME SET pads for the cooking time you want in Stage one.



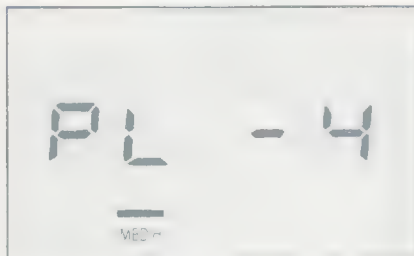
EXAMPLE: To set the cooking time to "25:10".

- Touch 10 MIN 2 times.
- Touch 1 MIN 5 times.
- Touch 10 SEC 1 time.

The Display will show the numbers pressed in the order you pressed them.

**POWER
LEVEL**

6. Touch **POWER LEVEL** repeatedly until the desired power level for Stage two is shown in the Display Window.

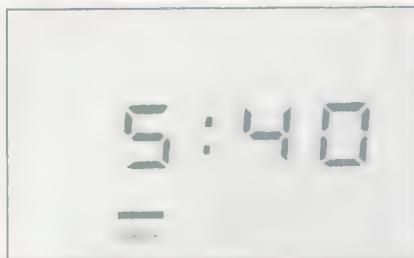


EXAMPLE: To select "PL-4".

- Touch POWER LEVEL repeatedly until the MED-H indicator lights and "PL-4" is displayed.



7. Touch the TIME SET pads for the cooking time you want in Stage two.



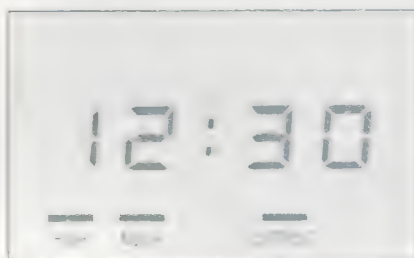
EXAMPLE: To set the cooking time to "5:40".

- Touch 1 MIN 5 times.
 - Touch 10 SEC 4 times.
- The Display will show the numbers pressed in the order you pressed them.

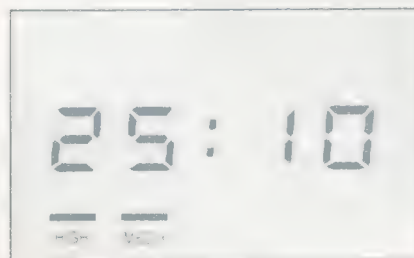
NOTE: To Auto defrost and cook in one stage only, skip steps 2 and 4.

START

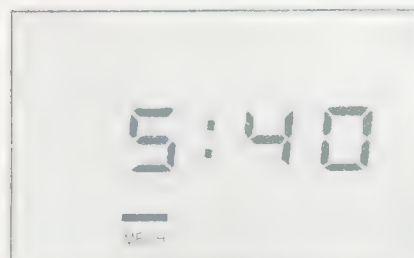
8. Touch **START**.
Defrosting and two stage cooking begin.



EXAMPLE: When you touch START, the DEFROST, HIGH and MED-H indicators come on to confirm the power levels selected in steps 2, 4 and 6. The DEFROST indicator starts blinking to show you that the oven is in AUTO DEFROST mode. The Display counts down the time remaining in AUTO DEFROST mode.



At the end of AUTO DEFROST mode, the oven will beep and start Stage one. The DEFROST indicator goes off and the HIGH indicator starts blinking. The Display counts down the time remaining in Stage one.



At the end of Stage one, the oven will beep and start Stage two. The HIGH indicator goes off and the MED-H indicator starts blinking. The Display counts down the time remaining in Stage two. When Stage two ends, you will hear 5 beeps.

MEMORY 1, 2 PROGRAMMING

The oven can program the power level and cooking time of up to 2 recipes. Enter the cooking instructions as shown below. Press the MEMORY 1 or MEMORY 2 pad to store the power level and cooking time into memory.

MEMORY 1

1. Touch **MEMORY 1**.



When you touch MEMORY 1, the MEMORY 1 LED lights and a colon is displayed.

2. Enter the desired power level and cooking time.



EXAMPLE: Cook for 12 minutes and 30 seconds at power level 4 (MED-H).

- Touch COOK 1 time.
- Touch POWER LEVEL 1 time.
- Touch 10 MIN 1 time.
- Touch 1 MIN 2 times.
- Touch 10 SEC 3 times.

The MED-H indicator lights and "12:30" is displayed.

NOTE:

Only one cooking stage can be programmed.

MEMORY 1

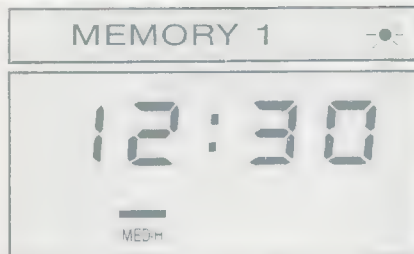
3. Touch **MEMORY 1** again.

When you touch MEMORY 1, the MEMORY 1 LED lights off and the present time returns to the Display Window.

To store the cooking instructions for a second recipe, repeat steps 1–3 using MEMORY 2.

MEMORY 1, 2 COOKING

1. Touch the desired Memory pad (1 or 2) to recall memory data (See preceding section).



EXAMPLE: Touch MEMORY 1, the MEMORY LED lights and the power level and cooking time are displayed.

START

EXAMPLE: When you touch **START**, the MED-H indicator and MEMORY 1 LED start to blink. The Display counts down the remaining cooking time. When cooking time ends, you will hear 5 beeps.

2. Touch **START**.

TO RECALL MEMORY DATA

1. Touch the desired Memory pad (1 or 2) to recall memory data. The programmed power level and cooking time will be displayed.

2. Touch **STOP/CLEAR**.

The Memory display will disappear; it will not be erased.

NOTE: Memory programs are erased when a new program is entered.

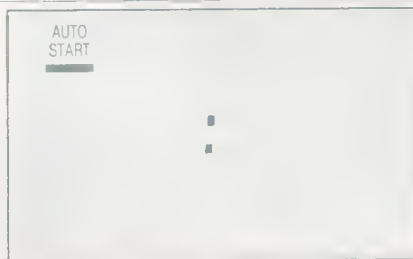
AUTO START

Allows you to program cooking to start at a time you select (up to 11 hours and 59 minutes ahead of the present time). The food will automatically start cooking at the preset time.

1. Program the desired power level and cooking time as previously instructed.

**AUTO
START**

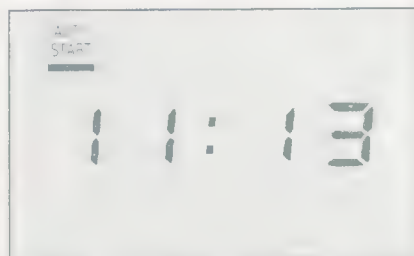
2. Touch **AUTO START**.



The AUTO START indicator and the colon come on.



3. Touch the TIME SET pads to set the desired start time (up to 11 hours and 59 minutes ahead of the present time).



EXAMPLE: To set the AUTO START time to "11:13".

- Touch HOUR 11 times.
- Touch 10 MIN 1 time.
- Touch 1 MIN 3 times.

The Display will show the numbers pressed in the order you pressed them.

NOTE: When using the AUTO START feature some foods may begin to spoil if left at room temperature too long.

START

4. Touch **START**.

When you touch **START**, the present time appears in the Display Window and the cooking program indicators (showing the power levels previously selected) come on. The **AUTO START** indicator and the colon start blinking. When the selected start time arrives the oven begins operating and the oven light turns on. The **AUTO START** indicator goes off and the next stage indicator begins to blink. When the cooking is completed you will hear 5 beeps. The oven turns off and the present time appears in the Display Window.

NOTE: if the oven door is opened before the **AUTO START** time, press the **START** pad again after closing the door so that the oven will start at the programmed time.

TO CHECK AUTO START TIME

Once you have correctly programmed the oven for **AUTO START**, the correct present time (not the **AUTO START** time) will appear on the Display.

**AUTO
START**

The programmed **AUTO START** time will appear in the Display window as long as the **AUTO START** pad is pressed.

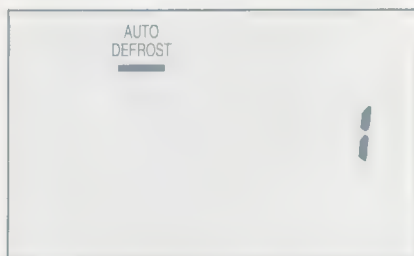
1. Touch **AUTO START**

AUTO WEIGHT DEFROST

AUTO WEIGHT DEFROST lets you easily defrost food by eliminating guesswork in determining defrosting time. The minimum weight for **Auto Weight** defrost is 0.5 pounds. The maximum weight depends on the food category: Up to 6 pounds for poultry, 4 pounds for meat and 3 pounds for fish. Follow the steps below for easy defrosting.

**AUTO WEIGHT
DEFROST**

1. Touch **AUTO WEIGHT DEFROST**.



The **AUTO DEFROST** indicator lights and food category "1" is displayed. Keep pressing this pad to select other food categories as shown in the chart below.

CATEGORY	FOOD	RANGE
1	Poultry, whole	0.5 to 6.0 lbs.
2	Meat, ground	0.5 to 4.0 lbs.
3	Fish, whole	0.5 to 3.0 lbs.

For different foods or foods weighing more or less than the ranges listed above, use **AUTO DEFROST** (See page 9)

2. Enter the weight of the food to be defrosted.

- For food weighing 0.5 to 0.9 pounds.

Touch **0.1 LB** repeatedly until the desired weight is shown in the Display Window.



EXAMPLE: To select 0.8 pounds.

Touch **0.1 LB** repeatedly until "0.8" appears in the Display Window.

- For food weighing 1.0 pound or more.

Touch **1.0 LB** repeatedly until the desired number of pounds appears in the Display Window.

Then touch **0.1 LB** repeatedly to enter tenths of a pound.



EXAMPLE: To select 2.5 pounds.

Touch **1.0 LB** repeatedly until "2.0" appears in the Display Window.



Then touch **0.1 LB** repeatedly until "2.5" appears in the Display Window.

If you make a mistake or wish to enter a new weight, press STOP CLEAR and begin again with step 1.

- * **Note:** Pressing **1.0 LB** repeatedly will set the display to 1.0 lb, according to the weight and the category selected. See the following examples of how the Display changes.

- Category 1 (1.0 → 2.0 → 3.0 → 4.0 → 5.0 → 6.0 → 0.5 → 1.5 → 2.5 → 3.5 → 4.5 → 5.5 → 0.5 → ...)
- Category 2 (1.3 → 2.3 → 3.3 → 0.5 → 1.5 → 2.5 → 3.5 → 0.5 → ...)
- Category 3 (1.8 → 2.8 → 0.8 → 1.8 → 2.8 → 0.8 → ...)

START

3. Touch **START**.

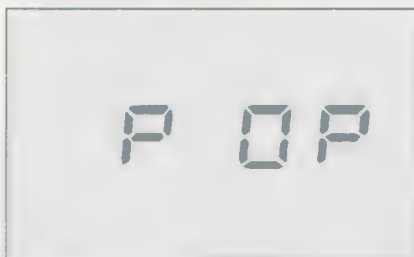
Auto Weight defrosting begins. The defrosting time is automatically determined by the food category and weight entered. The AUTO DEFROST indicator blinks and the defrosting time counts down in the Display Window. When Auto Weight defrost ends, you will hear 5 beeps.

POPCORN

Put the popcorn package (3.5 oz) in the oven and close the door.

POPCORN

1. Touch **POPCORN**



When you touch POPCORN, the POPCORN LED lights, and "POP" is displayed.

START

2. Touch **START**.

2:16

When you touch **START**, the **POP-CORN** LED blinks and the oven starts cooking. The Display counts down the cooking time of 2 minutes and 16 seconds, then the oven beeps 5 times when the cooking is completed.

Do not leave oven unattended while popping popcorn. If popcorn does not pop sufficiently, cook a few seconds longer. Do not press **POPCORN** again as the popcorn may burn. Check popcorn bag for cooking instructions. Some brands of microwave popcorn may require more or less cooking time.

- NOTE:**
1. Use only 1 package (approx. 3.5 oz) at a time.
 2. Use only a microwave popcorn package in the microwave oven.
 3. Do not try to pop unpopped kernels after the bag is opened.
 4. When opening the package, face it away to avoid contact with any steam released.

COFFEE

Use the **COFFEE** feature to reheat up to 3 mugs of coffee (9 oz., 275 mL/mug).

COFFEE ☀

1. Touch **COFFEE** repeatedly until the desired number of mugs appears in the Display Window.

COF 2

EXAMPLE: To select 2 mugs.
• Touch **COFFEE** 2 times.
The **COFFEE** LED lights and "COF 2" is displayed.

START

2. Touch **START**.
The coffee is reheated.

3:00

EXAMPLE: Touch **START**, the **COFFEE** LED blinks and the oven starts reheating. The Display counts down the reheating time for 2 mugs. When reheating is completed the oven beeps 5 times.

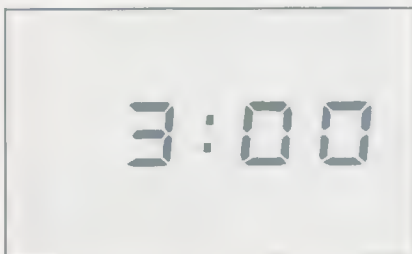
- NOTE:** Up to 3 mugs of coffee can be reheated. Cooking time is as follows:
- | | |
|--------|-------------------------|
| 1 MUG | COF 1 (1 Min., 30 Sec.) |
| 2 MUGS | COF 2 (3 Min., 00 Sec.) |
| 3 MUGS | COF 3 (4 Min., 30 Sec.) |

REHEAT

Use the REHEAT feature to reheat foods for 1 to 5 minutes.

REHEAT 

1. Touch **REHEAT** 1 time for each minute of reheat time desired (up to 5 minutes).



EXAMPLE: To select 3 minutes.

- Touch REHEAT 3 times. The REHEAT LED lights and "3:00" is displayed.

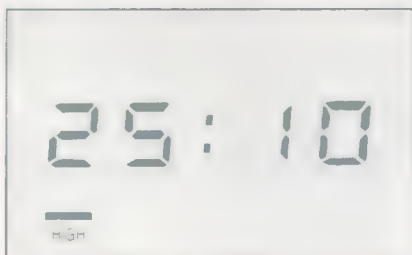
2. Touch **START**.

The REHEAT LED blinks and the oven starts cooking. The Display counts down the cooking time entered in step 1. When cooking is completed, the oven beeps 5 times.

HOLD WARM

The HOLD WARM feature can be used to keep food warm after the cooking is completed.

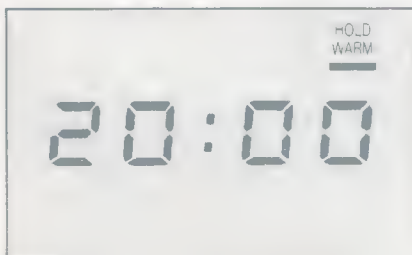
1. Program the desired power level and cooking time as previously instructed.



EXAMPLE: SELECT "PL-5" (HIGH for "25:10".

HOLD WARM

2. Touch **HOLD WARM** for every 10 minutes of HOLD WARM time desired (up to 30 minutes).



EXAMPLE: To select 20 minutes.

- Touch HOLD WARM 2 times. The HOLD WARM indicator lights and "20:00" is displayed.

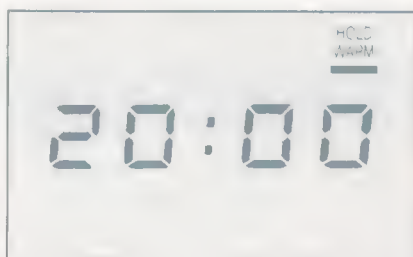
START

3. Touch **START**.
The oven begins cooking as programmed in step 1.

When the cooking is completed, the oven begins the HOLD WARM mode as programmed in step 2.



EXAMPLE: The HIGH and HOLD WARM indicators come on. The HIGH indicator starts blinking to show you that the oven is cooking. The Display counts down the remaining cooking time.



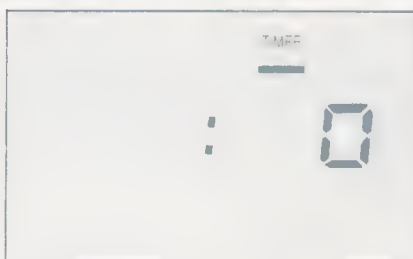
When cooking is completed, the HIGH indicator goes off and the HOLD WARM indicator starts blinking. The Display counts down the remaining HOLD WARM time. When HOLD WARM ends, you will hear 5 beeps.

TIMER

Use the Timer to set all purpose (baking) times. The Timer will operate but no microwaves are produced.

TIMER

Touch **TIMER**.



When you touch TIMER, the TIMER indicator lights and a colon and a "0" are displayed.



2. Touch the TIME SET pads for the time you want. (up to 99 minutes).



EXAMPLE: To set the time to 21 minutes.

- Touch 10 MIN 2 times.
- Touch 1 MIN 1 time.

The Display will show the numbers pressed in the order you pressed them.

START

3. Touch **START**.

When you touch START, the TIMER indicator starts blinking, the Display counts down the time to show you how much time is left.

- NOTE:**
1. While using the timer, the magnetron cannot be operated.
 2. Opening the door will not stop the timer.
 3. The maximum timer setting is 99:00.

TO STOP THE OVEN WHILE THE OVEN IS OPERATING

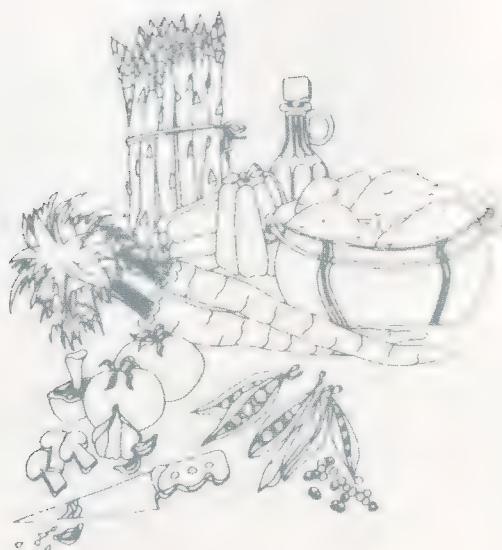
1. Press STOP/CLEAR

- The pause indicator starts blinking.
- You can restart the oven by touching START.
- Touch STOP/CLEAR once more to erase all instructions except for memory data.
- You must enter in new instructions.

2. Open the door

- You can restart the oven by closing the door and touching START.

NOTE: Oven stops operating when door is opened.



COOKING GUIDE

THE PRINCIPLES OF MICROWAVE COOKING

Microwaves are a form of high frequency radio waves similar to those used by a radio including AM, FM and CB. Electricity is converted into microwave energy by the magnetron tube. From the magnetron tube, microwave energy is transmitted to the oven where it is reflected, transmitted, and absorbed by the food.

Reflection

Microwaves are reflected by metal just as a ball is bounced off a wall. For this reason, metal utensils are not suitable for use in the microwave. A combination of stationary (interior walls) and rotating metal (turntable or stirrer fan) helps assure that the microwaves are well distributed within the oven cavity to produce even cooking.

Transmission

Microwaves pass through some materials such as paper, glass and plastic much like sunlight shining through a window.

Because these substances do not absorb or reflect the microwave energy, they are ideal materials for microwave oven cooking containers.

Absorption

During cooking, microwaves will be absorbed by food. They penetrate to a depth of about $\frac{3}{4}$ to $1\frac{1}{2}$ -inches (1.8 to 3.7-cm). Microwave energy activates the molecules in the food (especially water, fat and sugar), and heat is produced. If you vigorously rub your hands together, you will feel heat produced by friction. The internal cooking of larger foods is done by conduction as the heat which is produced by friction is conducted to the middle of the food. Foods also continue to cook by conduction during standing time.

FOOD CHARACTERISTICS

Quantity: The amount of food placed in a microwave oven has a direct effect on the cooking time. Small amounts of food or liquid require less cooking time than larger amounts of the same substance. As quantity increases, concentration decreases.

Size: Small pieces cook faster than large ones. To speed cooking, cut pieces smaller than 2-inches (5-cm), so microwaves can penetrate to the middle from all sides. Pieces which are similar in size and shape cook more evenly.

Shape: Many foods are uneven, like a chicken, ribs or broccoli. The thin parts will cook faster than the thick parts, while uniformly thick foods cook evenly.

To compensate for irregular shapes, place thin pieces toward the center of the dish and thicker pieces toward the edge of the dish.

Starting Temperature: Frozen or refrigerated foods take longer to cook than foods at room temperature.

Bone and Fat: Because bones conduct heat, the side of meat the bone is on will cook first, while boneless cuts cook slower but more evenly. Fat attracts microwaves.

The middle of these foods are cooked by heat conduction.

Moisture Content: Microwaves are attracted by moisture. Naturally moist foods absorb microwaves better than dry ones. Add a minimum of liquid to moist foods, as excess water slows cooking.

Density: The density of food determines how easily the microwaves can penetrate and how quickly it will cook. Porous foods, like chopped beef or mashed potatoes, microwave faster than dense ones like steak or whole potatoes.

Steam builds up pressure in foods which are tightly covered by a skin or membrane. Pierce potatoes, egg yolks and chicken livers to prevent bursting.

MICROWAVE TECHNIQUES

Stirring: Stir foods from outside to center of dish once or twice during cooking to equalize heat and speed microwaving. Foods will not burn or stick, so there's no need to stir constantly as you do in conventional cooking.

Arrangement: Arrange foods with thin or delicate ends, like asparagus or asparagus spears with the thick or tougher portions to the outside of the dish. The parts which need more cooking will receive more energy, so food will microwave evenly.

Spacing: Individual foods, such as baked potatoes and casseroles, will cook more evenly if placed in the oven an equal distance apart. When possible, arrange foods in a circular pattern. Similarly, when placing foods in a baking dish, arrange around the outside of dish, not lined up next to each other. Food should not be stacked on top of each other.

Rearrangement: Rearrange overlapping meat, like meatballs, from top to bottom, and closely packed pieces, like meat balls, from the outside of the center of the dish.

Standing Time: Standing time helps equalize heat and finish cooking. Microwave energy creates heat in the outer layers of the food. As a result of normal conduction, the food continues to cook for a few minutes after removal from the oven. Letting roasts, large whole vegetables, casseroles and cakes stand to finish cooking allows the middles to cook completely without overcooking, drying or toughening the outsides.

Covering: Covering speeds cooking time, retains moisture, helps ensure even cooking and prevents spattering. Casserole lids or plastic wrap are used for a tighter seal. Vent plastic by turning back one edge at the side of dish to form a narrow slot where excess steam can escape. Various degrees of moisture retention are also obtained by using wax paper or paper towels.

Browning: Microwave energy cooks some foods so quickly that the fats and sugars within the food do not have time to caramelize and give a "browned" appearance. Browning agents do not affect the quality of microwaved foods, but can add color and flavor. For meats and poultry, use bouquet sauce diluted with water or melted butter; soy, Worcestershire, barbecue or steak sauce; a sprinkling of paprika or dry gravy mix; jelly glaze or crumb coating. Frosting and topping finish cakes and breads. Top casseroles at the end of microwaving with grated cheese or crumbs.

Some Foods do not Microwave Well

Eggs in Shells and shelled boiled eggs can burst.

Pancakes don't toast, but they reheat well. Fully prepared, frozen pancakes are available for microwaving.

Deep Fat Frying can cause burns.

Bottles with narrow necks may shatter if heated.

Pop popcorn only in specially microwave poppers. Do not use oil unless specified by the manufacturer or heat longer than recommended. Never pop popcorn in paper bags or glass utensils.

AUTO WEIGHT DEFROSTING

Defrosting frozen food is one of the benefits of a microwave oven. Microwave defrosting is much faster than refrigerator defrosting and safer than room temperature defrosting, since it does not promote the growth of harmful bacteria.

Furthermore, your oven also does Auto Weight Defrosting for the foods listed below. See page 16 for more information.

AUTO WEIGHT DEFROSTING CHART

You can Auto Weight Defrost foods up to the weight limits shown.

CATEGORY	FOOD	RANGE
1	Poultry, Whole	0.5 to 6.0 lbs
2	Meat, Ground	0.5 to 4.0 lbs
3	Fish, Whole	0.5 to 3.0 lbs

For different foods or foods weighing more or less than the ranges listed above, use Auto Defrost (See page 9).

Preparing Food For Freezing

For best results, select good quality food and freeze immediately. Food should be wrapped as airtight as possible before freezing.

Wrapping materials best suited for use in the freezer are odorless, and moisture and vapor proof. Heavy-duty plastic wraps and bags, and freezer wrap are suitable.

When wrapping for freezing, arrange meat, poultry, fish and seafood in thin uniform layers. Package minced meat in 2.5 to 5-cm (1 to 2-inch.) thick rectangular, square or round shapes. Chicken pieces, chops, stew meat and fish fillets will defrost more easily if frozen in 1 or 2 piece layers rather than in bulky, thick packages. To aid in separating chops, hamburger patties and fish fillets during defrosting, place two pieces of wax paper between the layers.

Remove giblets from fresh whole poultry. (The giblets may be frozen separately, if desired.) Clean and dry poultry. Tie the legs and wings with string, this helps poultry keep its shape during freezing. Remove excess air from package. Label with contents, date and weight.

Conversion Chart

Ounces	Hundredths of a Pound	Tenths of a Pound	Grams
1 – 2	.06 – .15	0.1	50
3 – 4	.16 – .25	0.2	100
5 – 6	.26 – .35	0.3	150
7	.36 – .45	0.4	200
8 – 9	.46 – .55	0.5	250
10 – 11	.56 – .65	0.6	300
12 – 13	.66 – .75	0.7	350
14	.76 – .85	0.8	400
15 – 16	.86 – .95	0.9	450

* If a roast weighs 3.95 pounds or 3 pounds 15 ounces, program 3.9 pounds (1950 grams).
If a roast weighs 3.99 pounds or 4 pounds 0 ounces, program 4 pounds (2000 grams).

To obtain the best results, follow these techniques for defrosting. Remember, when defrosting to allow for a standing time to evenly thaw. When thawing, place frozen or frozen properly on dish so microwave can reach all sides. Halfway through defrosting time, stir and turn over to defrost. Breaking up the pieces of chicken, fish and meat when they are partially thawed will help. Any pieces which are already thawed should be removed.

POPPING POPCORN

One of the major features of your oven is popping popcorn. Place the microwave popcorn package (3.5 oz.) on the glass tray, following manufacturer's directions.

Touch POPCORN and the oven will operate for 2 minutes and 16 seconds, the average popping time. Do not leave the oven unattended while popping popcorn. If popcorn does not pop sufficiently, cook a few seconds longer. Do not press POPCORN again as the popcorn may burn. When opening the package, face it away to avoid contact with any steam released.

NOTE: Do not use the popcorn pad with single serving bag, or microwave popcorn as they require less cooking time. Always follow instructions on the popcorn bag.

REHEATING

One of the major benefits of the microwave cooking method is its efficiency in reheating cooked food. Most foods can be reheated in the microwave with **without** loss of quality or texture. Leftovers are as good as when freshly prepared, and it is no longer necessary to keep food hot until every one is ready to eat.

Some foods reheat especially well. Some even improve in flavor if they are made in advance. Care must be taken to avoid additional cooking; rare meat should never be heated beyond its original doneness temperature, or it will cook to medium or well done.

To reheat properly, **cover** food with a lid. Exceptions are rare or medium meats, some sandwiches, griddle foods like pancakes, and baked foods. Wrap breads and sandwiches in paper napkins to absorb moisture and prevent sogginess.

See the chart for recommended foods and weights that can be cooked in each category. There are 5 categories for reheating. Use only microwaveable containers.

Reheating Chart (touch REHEAT)

Category & Item	Amount	Starting Temp.	Suggested Serving Temp.	Special Techniques
1 Meat Slices beef, ham, pork, turkey.	1 to 2 servings (340g, 12 oz.)	Refrigerated.	66 to 71°C (150 to 160°F)	Cover with wax paper. Do not cover rare or medium rare meats.
2 Casseroles	2 to 3 servings (454g, 16 oz.)	Refrigerated.	60 to 77°C (140 to 170°F)	Cover, stir after half the time.
3 Soups	1 serving (284g, 10 oz.)	Refrigerated.	60 to 77°C (140 to 170°F)	Cover, stir after half the time.
4 Breads cake (coffee cake, doughnuts, sweet rolls), dinner rolls, muffins.	3 pieces	Refrigerated.		Wrap in paper napkin or towel.
5 Plated Meals meat plus 2 vegetables	1 plate	Refrigerated.	66 to 71°C (150 to 160°F)	Cover plate with wax paper or plastic wrap.

COFFEE REHEATING

You can reheat leftover coffee easily and quickly with your oven.

Reheating can be from one cup to three cups. Put cups (mugs) in the oven and press COFFEE. When pressing, consult the list below.

1.	COF 1	1 mug (1 min 30 sec)
2.	COF 2	2 mugs (3 min 00 sec)
3.	COF 3	3 mugs (4 min 30 sec)

Arrange cups in a ring with space between them when reheating more than two. Leave the center empty. After reheating, remove cups carefully; they may be quite hot.

HOLD WARM

When not serving food immediately after cooking, it can be kept warm by using the HOLD WARM function. It keeps food warm by heating with the lowest power level constantly. The Hold Warm mode only operates with the cooking function.

Set power and time to cook, then press Hold Warm pad. Thereafter, foods can be kept warm properly until serving.

HOT SNACKS AND APPETIZERS

Hot hors d'oeuvres and appetizers can be prepared very quickly in the oven by the hostess, or individual servings may be prepared by guests.

Many appetizers may be cooked on the serving platter, provided the platter does not have metal trim. A time saver tip—prepare these foods ahead of time, refrigerate or freeze and refresh in the oven at serving time. A plate of appetizers will take only seconds to prepare or refresh.

Cheese melts very rapidly and will toughen if overcooked, so watch foods combined with cheese closely so that overcooking will not occur. As soon as cheese starts to bubble, cooking is completed.

Appetizers that have a crisp pastry exterior are best prepared in a conventional oven.

To prepare appetizers wrapped in bacon, it will be necessary to precook the bacon and then wrap around the foods. Oysters wrapped in bacon are easier to prepare in the broiler of your conventional range.

Seafood mixtures can be prepared in serving shells as microwave energy will pass through the seafood shells without heating. Aluminum foil should not be used for shells.

If spreads are placed on crackers, care should be taken not to overcook as moisture from the food will cause crackers to become soggy. We have found that crackers used for spreads should be very dry and crisp. This helps avoid sogginess. Heat only until spread is at serving temperature.

The time required to heat all appetizers will depend on the amount of food, and the number and the type of dish selected. Remember the food will become very hot even if the dish is cool. Cheese mixtures retain heat longer when heated with microwave energy.

MEATS

Guide for Defrosting Meats

You may defrost meat within its original paper or plastic wrappings. Remove all metal rings, wire twist ties, and all foil wrapping.

Place meat in microwaveable dish.

Defrost in the microwave oven only as long as necessary, since standing time will complete the thawing process. Slightly increase the time for weights larger than on the chart. Do not double.

Item and Weight	Defrosting Time (minutes per pound)	Standing Time (minutes per pound)	Special Techniques
BEEF			
Minced	2½–3½ min.	5–7 min.	Break apart and remove thawed portions with fork.
Stew Meat	2–3 min.	5–7 min.	Separate and rearrange once.
Loin Roast	2–3 min.	5–7 min.	Turn over after half the time. Shield as needed.
Patties	1½–2½ min.	5–7 min.	Turn over after half the time
PORK			
Loin Roast	1½–2½ min.	5–7 min.	Turn over after half the time.
Spareribs	2–3 min.	5–7 min.	Separate and rearrange once.
Chops	2–3 min.	5–7 min.	Separate and turn over once.
Minced	1½–2½ min.	5–7 min.	Break apart and remove thawed portions with fork.

Guide for Cooking Meats

Steaks, chops, hamburgers and small cuts of tender meat cook beautifully in the microwave oven. Most roasts can be cooked rare, medium or even well-done in less than one hour. Less tender cuts of meat—such as pot roast—can be simmered fork tender in a sauce or gravy. Tough cuts that require long slow cooking will do better in the conventional range or oven.

A large piece of meat, especially if the shape is uneven, should be turned over occasionally for uniform roasting.

Meat	Power Level	Cooking Time (per lb./500g)	Standing Time	Special Notes
Beef Roast				
Rare	Power 4	6–8 min.	5–7 min.	Turn over after half the time.
Medium	Power 4	8–10 min.	10–15 min.	
Well	Power 4	10–12 min.	10–15 min.	
Pork Roast				
Bone-in	Power 4	12–15 min.	10 min.	Cover with plastic wrap.
Boneless	Power 4	16–18 min.	10–15 min.	Turn over after half the time.
Lamb Roast				
Bone-in Medium	Power 4	7–9 min.	10–12 min.	Turn over after half the time. Shield as needed.
Well	Power 4	9½–11½ min.	10–15 min.	
Boneless Medium	Power 4	9–11 min.	10–12 min.	
Well	Power 4	11–13½ min.	10–15 min.	
Beef Patties (3½ oz. (100g) ea.)				
2 patties	Power 5	2½–3 min.	5–7 min.	Turn over and rearrange after half the time.
4 patties	Power 5	3½–4½ min.	5–7 min.	
Meat Loaf (2 lb. (907g))	Power 4	15–18 min.	10–12 min.	Cover with wax paper.
Bacon				
Slices (4 strips)/ (1 slice; weight: 30g, length: 28cm)	Power 5	4–5 min.	—	Cover with paper towel.
Ham				
Slices (2.5-cm (1-inch) thick)/ 4 slices	Power 5	7½–8½ min.	5–7 min.	Cover with plastic wrap

POULTRY

Guide for Defrosting Poultry

Poultry dishes can be defrosted in your microwave oven. Remove giblets and defrost fully before cooking. Use a microwaveable dish and defrost only as long as necessary. Standing time will complete the thawing process.

Item	Defrosting Time (minutes per pound)	Standing Time (minutes per pound)	Special Techniques
Chicken Whole	3–4 min.	10–15 min.	Breast side down. Turn over after half the time. Shield as needed.
Pieces	2–3 min.	7–10 min.	Separate and rearrange once.
Breasts	2–3 min.	5–7 min.	Separate and rearrange once.
Cornish Hens	2½–3½ min.	5–7 min.	Breast side down. Turn over after half the time. Shield as needed.
Turkey Breasts	2–3 min.	5–7 min.	Turn over after half the time.

Guide for Cooking Poultry

Chicken is one of the most popular foods and microwaving chicken is one of the best uses of your microwave oven. Chicken stays juicy and tender in the microwave oven. However, juiciness prevents browning because chicken crisps and browns only when the skin dries out enough to change color. Standing time is important, because it allows the interior to finish cooking without toughening the delicate breast meat.

Food	Power Level	Cooking Time (per lb./500g)	Standing Time	Special Notes
Roast				
Chicken whole	Power 5	6–8 min.	10–15 min.	Place breast-side up on roasting rack. Let stand covered, before serving
Chicken cut up	Power 5	6–7 min.	7–10 min.	
Turkey	Power 4	6½–8 min.	10–15 min.	
Cornish Hens	Power 5	7–8 min.	7–10 min.	
Turkey Breast	Power 3	9–10½ min.	5–7 min.	Rearrange once during the cooking. Cover with wax paper.

SEAFOOD

Guide for Defrosting Seafood

Item	Defrosting Time (minutes per pound)	Standing Time (minutes per pound)	Special Techniques
Whole Fish	2–3 min.	5–7 min.	Turn over after half the time. Shield as needed.
Fish Fillets	2–3 min.	5–7 min.	Separate and turn over once.
Shrimp	1½–2½ min.	5–7 min.	Separate and rearrange once.

Guide for Cooking Seafood

Microwaving is one of the easiest and most effective ways of preparing fish and seafood, which stay delicate and tender with quick, moist cooking. Overcooking dries out and toughens seafood, so you should check it after the minimum time. If thick pieces like fish steaks or lobster tails are done on the outside but still slightly translucent in the middle, let them stand for a few minutes; internal heat will complete the cooking.

Food	Power Level	Cooking Time	Standing Time	Special Notes
Whole Fish (1 lb. to 1½ lbs.) (454g to 681g)	Power 5	6–7 min.	5 min.	Turn over after half the time. Shield thin parts as needed
Fish Fillet (1 lb. (454g))	Power 5	6–7 min.	4–5 min.	Turn over after half the time.
Fish Steak 1-inch (2.5-cm) thick (1 lb. (454g))	Power 5	4–5 min.	5–6 min.	Turn over after half the time. Cover with wax paper.
Shrimp (1 lb. (454g))	Power 5	3–4 min.	5 min.	Rearrange once. Cover with plastic wrap.
Seascallops (1 lb. (454g))	Power 4	6–7 min.	5 min.	Rearrange once. Cover with plastic wrap.

EGGS & CHEESE

Guide for Cooking Eggs & Cheese

CHEESE

Cheese melts quickly and smoothly. When serving cheese as an appetizer, flavor is at a peak when served at room temperature. Use low power level for melting. Cheese melts best when shredded and heated with milk or other liquids. Stir cheese mixtures several times for even heating.

EGGS

Eggs cook differently by microwave. The high fat content of egg yolks absorb energy, so yolks cook faster than whites. It's easy to poach eggs in a microwave oven, but if you want soft yolks, remove eggs from the oven before whites are completely cooked. A brief standing time allows whites to set without overcooking yolks. Check eggs for completion of cooking early, they toughen when overcooked.

When eggs and yolks are mixed together for omelets, scrambled eggs or custards, they cook evenly and need less stirring than with the conventional cooking methods.

Do not try to cook eggs in the shell. Steam can build up inside the shells, causing them to burst.

Scrambled Eggs

Eggs	Butter	Milk or Water	Cook on Power 5	Procedure
2	1 Tbsp.	2 Tbsp.	1-2 min.	Place butter in small casserole and melt. Add eggs and milk, scrambling with fork. Cook as directed in chart, breaking up and stirring eggs twice. Let stand, covered, before serving.
4	1 Tbsp.	2 Tbsp.	2-3 min.	
6	2 Tbsp.	4 Tbsp.	3-4 min.	

Poached Eggs

Eggs	Water	Cook Water on Power 5	Cook Eggs on Power 4	Standing Time	Procedure
1	1½ cups	4-6 min.	1 min.	2 min.	Place water into medium casserole. Cook on Power 5 until boiling. Break eggs, one at a time, into separate dish, pierce yolk once with wooden pick and slip egg carefully into hot water, cook as directed in chart.
2	1½ cups	4-6 min.	1½-2 min.	2 min.	
4	2 cups	6-7 min.	2½-3 min.	2 min.	

VEGETABLES

Guide for Cooking Fresh Vegetables

Nutrition research indicates that many microwaved vegetables and fruits lose less water soluble vitamin C than when cooked conventionally. This is due to shorter cooking time, and to the fact that less cooking water is needed when microwaving fruits and vegetables. Best of all, vegetables keep their fresh color, texture and flavor. Vegetables should be microwaved covered with vented plastic wrap or a covered lid. Vegetables cooked in their skins, such as potatoes, are already softening, covered that they should be pricked with a fork before cooking in order to release excess steam. To assure even cooking, vegetables should be cut in uniform pieces and stirred during the cooking time. Always add salt to water before adding vegetables. Reduce time a minute or two for crisp-tender texture. Increase time for very soft texture. Remember to allow standing time of 2 to 5 minutes after cooking, because as most foods do, vegetables will continue to cook after they are removed from microwave oven.

Food	Water Amount	Cook on Power 5	Standing Time	Special Notes
Asparagus				
Spears (1 lb. (454g))	¼ cup	5-6 min.	2 min.	Medium Casserole. Rearrange once.
Cuts (1 lb. (454g))	½ cup	5-6 min.	2 min.	Medium Casserole. Rearrange once.
Beans				
Fresh green (½ lb. (227g))	¼ cup	4-5 min.	2 min.	Stir twice.
Frozen green (½ lb. (227g))	2 Tbsp.	3-4 min.	2 min.	Stir twice.
Green Peas (2 cups)	¼ cup	4-5 min.	2 min.	Small casserole. Stir twice.
Broccoli (2 cups)	¼ cup	3-4 min.	2 min.	Medium casserole. Rearrange once.
Brussels Sprouts (1 lb. (454g))	¼ cup	6-7½ min.	2-3 min.	Medium casserole. Stir once.
Cabbage (1 lb. (454g))	¼ cup	5-6 min.	2-5 min.	Rearrange once.
Cauliflower pieces (1 head)	¼ cup	6-7 min.	2-5 min.	Wrap in plastic wrap. Stir once.
Mushrooms slices (½ lb. (227g))	2 Tbsp.	3-4 min.	2-3 min.	Small casserole. Stir once.
Potatoes, Baked				
2 (med.)	—	7-9 min.	5-7 min.	Pierce skin.
4 (med.)	—	11-13 min.		Rearrange once.

SOUPS

Guide for Cooking Soups

Satisfy hearty appetites with savoury soups prepared in your microwave oven. Follow our recipes for home-made soups and stews or adapt your favorites by using similar cooking times and techniques.

Food	Power Level	Cooking Time	Standing Time	Special Notes
Canned Condensed				
Cream style, Bean, Pea, or Mushroom (10½-11½ oz. (298-326g))	Power 5	4½-5½ min.	2-3 min.	Stir halfway through
With Water	Power 4	5½-6½ min.	2-3 min.	Cooking time, Covered.
With Milk				
Dry Soup Mix	Power 5 then	5½-7 min.	2-3 min.	Add tap water. Cover with lid.
(1 envelope (38g))	Power 3	2½-3 min.		Stir twice.
Broth (10½ oz. (298g))	Power 5	4-5 min.	2-3 min.	Stir twice. Covered.

SAUCES

Guide for Cooking Sauces

Sauces boil over rapidly; especially those that contain milk. As soon as the door is opened, cooking stops. If ingredients are not taken directly from the refrigerator, cooking time will be less than given in the recipe. Stir sauce quickly, about every 30 seconds to eliminate lumps.

A wooden spoon may be left in the dish while sauce is cooking for easy stirring. If sauce is stirred slowly, cooking time may require about 15 seconds longer.

If desired, a 1 quart glass measure may be used to prepare some sauce.

White Sauce

Amount	Butter	Flour	Milk	Cook Butter	Cook Sauce	Special Notes
1 cup, thin	1 Tbsp.	1 Tbsp.	1 cup	40 sec.	2½–3½ min.	Cook on Power 5 as directed or until thickened, Stirring once. Let stand, covered, before serving.
medium	2 Tbsp.	2 Tbsp.	1 cup	1 min.	2½–3½ min.	
thick	3 Tbsp.	3 Tbsp.	1 cup	1 min.	3–4 min.	

Brown Gravy

Amount	Fat from Drippings	Flour	Liquid or Drippings	Cook on Power 5	Special Notes
1 cup, thin	1 Tbsp.	1 Tbsp.	1 cup	2½–3½ min.	Cook on Power 5 as directed or until thickened, Stirring once. Let stand, covered, before serving.
medium	2 Tbsp.	2 Tbsp.	1 cup	3–4 min.	
thick	3 Tbsp.	3 Tbsp.	1 cup	3½–4½ min.	

CASSEROLES

Casseroles may require occasional stirring to distribute heat. They cook more evenly when made with ingredients of similar size and shape. And because of their shorter cooking time, casseroles cooked in the microwave oven generally need less liquid. Casseroles with cream and cheese sauces or meats which need slower cooking to tenderize, cook best on DEFROST.

When cooking a favorite casserole, make two and freeze the second for future use. Line a casserole or baking dish with plastic wrap. Transfer the cooked food to the lined container and freeze. As soon as the food is frozen in the shape of the dish, remove it and wrap with freezer paper. Later it can be unwrapped and returned to the container for defrosting and heating.

Dry Casserole Mixtures

Many prepared box type casseroles are appearing on grocery shelves. A number have freeze dried foods or evaporated foods included. Cooking periods are so short that there may not be time for the foods to absorb the moisture sufficiently and reconstitute the foods. To prepare this type, boil the amount of water recommended on the package. Add the noodles, (when included) cover and cook for approximately 10 minutes. Allow noodles to stand covered for an additional 10 minutes, rinse with warm water and drain. Then follow package directions for preparing the mix. Reheat 4 to 6 minutes before serving.

SANDWICHES, INCLUDING HAMBURGERS AND HOT DOGS

Guide for Heating Sandwiches

Sandwiches heat very quickly because, being porous, they have a low density. Since the filling is usually more dense than the bread or rolls, the filling determines the heating time. Surprisingly, the filling will always be hotter than the bread feels. Care must be taken not to overcook as the bread will become tough. Use several thin slices of meat. Thin slices heat more quickly and are better than one thick slice. The slower-heating thick slice often causes the bread to overcook before the meat is hot. Sandwiches may be placed on a paper plate, napkin, or paper towel to be warmed. The sandwich should be covered with a paper towel. Remove wrapping immediately after warming. Already-baked frozen breads and rolls may be used for sandwiches. The filling, however, should be thawed first. Toasted bread is fine for sandwiches and provides a firm base. The toast is warmed only; no further browning occurs.

Food	Amount	Power Level	Cooking Time	Special Notes
Sandwich (6 oz. (170g) ea.)	1	Power 5	1 min.	Place on paper towels.
	2	Power 5	1½–2 min.	
	4	Power 5	3–4 min.	
Hamburger (4 oz. (113g) each)	1	Power 5	1 min.	Cover with paper towel.
	4	Power 5	3–4 min.	
Hot dogs (2 oz. (56g) each)	4	Power 5	1½–2 min.	Cover with paper towel.
Sloppy Joes	4	Power 5	4 min.	Place on microwaveable plate.

PASTAS & GRAINS

Guide for Cooking Pasta and Grains

Microwaved hot cereals can be cooked directly in the cereal bowl and make washing-up easy. Raw long grain rice takes time to rehydrate. Microwaving time is a little shorter than conventional, but the greatest advantage is the ease with which you can prepare fluffy rice without sticking or burning. Cooked rice and pasta reheat easily in the microwave oven without loss of flavor or texture. No extra water is needed to prevent sticking or drying, so there's no danger of overcooking rice and pasta or thinning sauces.

Food	Hot Water	Salt	Oil or Butter	Power Level	Cooking Time	Standing Time
Pasta (8 oz. (227g))						
Egg Noodles	4 cups	1 tsp.	1 Tbsp.	Power 5	6½–7½ min.	2–5 min.
Macaroni	4 cups	1 tsp.	1 Tbsp.	Power 5	8–10 min.	2–5 min.
Spaghetti	4 cups	1 tsp.	1 Tbsp.	Power 5	8–10 min.	2–5 min.
Lasagna Noodles	4 cups	1 tsp.	1 Tbsp.	Power 5	12–14 min.	2–5 min.
Rice, Long Grain						
White Rice (1 cup)	2 cups	1 tsp.	1 tsp.	Power 5	5–6 min.	5–7 min.
				then Power 4	9½–12 min.	
Brown Rice (1 cup)	2 cups	½ tsp.	1 tsp.	Power 5	5–6 min.	5–7 min.
				then Power 4	22–27 min.	

CONVENIENCE FOODS

Frozen Foods

A large variety of frozen foods, special dishes and dinners are available and the selections continue to increase. The market is changing rapidly, therefore it is impossible to list the foods and types available and recommend cooking procedures. In this book we can only give general directions to assist you.

T.V. Dinners

To prepare a T.V. dinner, follow the maker's instructions for use with microwave ovens.

To cook a T.V. dinner will require approximately 5 to 7 minutes, for the food to thaw and heat to serving temperature (depending on the type of food). Allow plastic wrap to remain over the dish for 2 minutes to allow heat to equalize.

Dinners that contain mashed potatoes have presented a bit of a problem due to the large compact mass of this particular food. You may want to remove about half the mashed potatoes after defrosting is started, then spread the remaining potatoes over the individual section of the tray. Heat the removed mashed potatoes in an individual dish.

For foods that should be broiled when cooking is completed, remove the plastic wrap and use the broiler of a conventional range to crisp the food.

Individual Frozen Foods

These may be commercially prepared or frozen at home. Place the container of frozen food in the oven and heat only until the food starts cooking and is no longer removed easily. Empty contents into a casserole or serving dish and continue to defrost and heat. Do not heat foods in deep foil containers. To crisp and brown special toppings, use the broiler of a conventional range.

If allowed to heat to serving temperature in a glass container, the container will warp or melt from the high heat of food.

Frozen Foods in Cooking Potatoes or Boilable Bags

To prepare these foods, slit the plastic bag and shake out as much as possible to help remove the food at the end of cooking time. Place the food side down on a serving dish with no meat trim. Heat foods other than vegetables for about 3 minutes. Frozen vegetables require about 5 minutes of cooking time. Allow the pouch bag to remain over the food for about 2 minutes to allow time for the heat to equalize.

Foods prepared in cheese or white sauce should be removed from the pouch and placed in a glass casserole dish and stirred to prevent overcooking of the sauce around the edges of the dish.

Complete Meals from Table Leftovers

Complete meals from leftovers can be prepared in advance. Foods can be frozen and ready for quick heating in the oven at any time. Choose foods suitable for reheating and put serving portions on paper, glass or china (no metal trim). If the wrap with re-usable waxed paper and freeze quickly. When portioning the servings of food on the plate, use approximately the same amount of each kind of food for more even heating. Mashed potatoes will heat quite fast and so will be browned with a pat of butter in the center. To prevent small pieces of vegetable from becoming hard and overcooked, mound well near the center of the plate.

BEVERAGES

Beverages can be quickly heated or reheated in the microwave oven. The cups or servings can be heated directly in cups or mugs, so you avoid washing sticky pans. Handles of cups and mugs stay cool, even though the beverage is hot. Beverages can be easily reheated. Measure water in a glass measuring cup or serving cup and refrigerate. Later, reheat in the microwave oven. The coffee will taste as if it had just been freshly brewed. Remember, however, to always vigorously stir a beverage before it is reheated.

Chocolate squares may be melted in their original wrapper, in a glass mixing bowl, in custard cups or glass measuring cups. If milk is to be added to melted chocolate squares, add water to the melted chocolate for easier blending.

DESSERTS

There's always time to make dessert with a microwave oven. Fruit desserts have a remarkably fresh flavor and texture. Microwaved cakes are higher and more tender than conventionally baked; since cakes are usually frosted, browning is unimportant. Microwaved pie crusts are exceptionally tender and flaky, while delicate custards and puddings are easy to prepare.

Guide for Cooking Cakes

Food	Power Level	Cooking Time	Standing Time	Special Notes
Cake, Round (Mixed 9-inch (23-cm))	Power 5 Power 4	3½–5 4½–6	2–5 min.	Pour into greased and wax paper lined cake dishes.
Ring Cake or Angel Food	Power 4	5½–6½ min.	2–5 min.	Cover with wax paper.
Muffin (12 muffins)	Power 3	5½–6½ min.	2–5 min.	Rearrange once.
Custard (6 servings)	Power 3	10–12 min.	5–7 min.	Rearrange once.

Baking

- Bar cookies work best. Greasing or lining of the microwaveable baking dish is optional.
- If insufficient browning disturbs you, frost, glaze, or add food coloring to white or yellow batters.
- A serviceable microwaveable cookie sheet can be made by covering cardboard with waxed paper.
- Round glass baking dishes, and fluted or smooth microwaveable ring molds work best for cakes. You can make a microwaveable ring mold of your own by placing a medium size glass in the center of a round glass baking dish.
- Because your cakes will rise higher in microwave cooking, never fill microwaveable cake pans more than half full.
- Reduce baking powder and soda to approximately one-fourth when converting a conventional recipe.
- Fill paper-lined muffin cups to only half full which allows for muffins to rise more than normal.
- You can prepare your own "brownie in a serve" breads and rolls by baking them ahead of time in the microwave oven. Then place them in a conventional oven to brown prior to serving.
- Breads and rolls should be reheated to the point where they are warm to the touch. Overheating or overcooking makes bread tough and rubbery.
- When making yeast bread in a microwave oven, choose a recipe with cornmeal, whole wheat flour, or rye flour to achieve a richer color.
- Remove baked custard from oven when center is nearly firm. Cooking will continue outside the oven.

WEIGHT & MEASURE CONVERSION CHART

■ POUNDS & OUNCES TO GRAMS

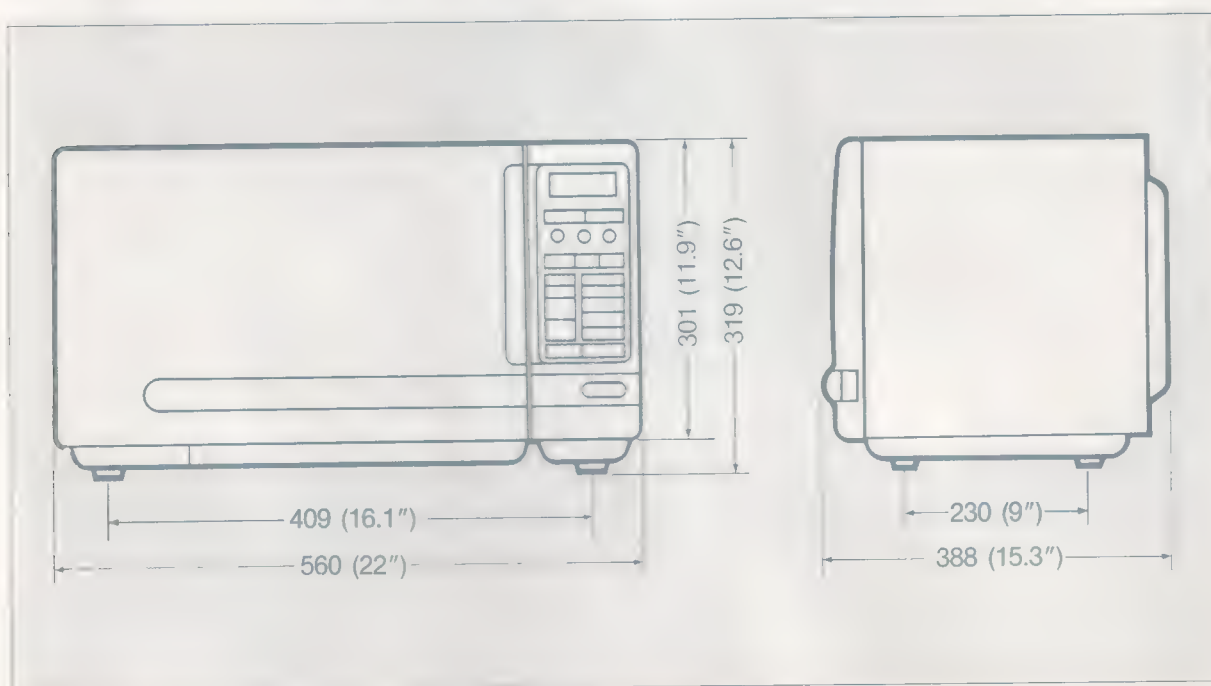
POUNDS (lb.)	GRAMS (g)	OUNCES (oz.)	GRAMS (g)	OUNCES (oz.)	GRAMS (g)
¼	114	1	28	9	255
½	227	2	57	10	284
¾	341	3	85	11	312
1	454	4	113	12	340
2	907	5	142	13	369
3	1361	6	170	14	397
4	1814	7	198	15	425
5	2268	8	227	16	454
6	2722				
7	3175				
8	3629				
9	4082				
10	4536				
11	4990				

■ FLUID MEASUREMENTS

1 Cup	=	8 fluid ounces	=	240 ml
1 Pint	=	16 fluid ounces	=	480 ml
1 Quart	=	32 fluid ounces	=	960 ml
1 Gallon	=	128 fluid ounces	=	3840 ml

SPECIFICATIONS

Item	Rating Specification
Power supply	120V Volts AC 60Hz ONLY
Power consumption	1400W
Microwave output power	850W
Microwave frequency	2,450 MHz
Outside dimensions	22"(W) × 15.3"(D) × 12.6"(H)
Cavity dimensions	14.6"(W) × 13.8"(D) × 8.5"(H)
Cavity volume	1.0 Cu.Ft.
Weight	Approx. 37.5 lbs.
Timer	Digital, 99 minutes 00 seconds



BEFORE YOU CALL FOR SERVICE

Refer to the following checklist, before you call for service.

*The oven doesn't work:

1. Check that the power cord is securely plugged in.
2. Check that the door is firmly closed.
3. Check that the cooking time is set.
4. Check for a blown circuit fuse or tripped main circuit breaker in your house.

*Sparkling in the cavity:

Check the containers or dishes in the oven and make sure they are not metal. If they are, remove them and use only non-metallic microwaveable utensils.

If there still is a problem contact the nearest EMERSON Authorized Service Center.



Emerson®

AUTHORIZED SERVICE

**TO FIND THE LOCATION AND
PHONE NUMBER OF YOUR
NEAREST AUTHORIZED
SERVICE CENTER**

CALL TOLL FREE: 1-800-695-0098

**FOR ADDITIONAL SET-UP OR
OPERATING ASSISTANCE**

PLEASE CALL:

1-800-388-8333

**FOR CUSTOMER SERVICE PLEASE CALL OR WRITE TO:
EMERSON RADIO CORP.**

State Highway 41 and County Road, 100W.

Princeton, Indiana 47670

1-812-386-3200

EMERSON RADIO CORP.

EMERSON
PART No. 80-2040
104-01

PRINTED IN KOREA
441BT90030

EMERSON RADIO CORP.

EMERSON
PART No. 80-2040
104-01

PRINTED IN KOREA
441BT90030